

Claims

1. Thermoplastic, flame-retardant moulding compositions, containing

5 A. 40 to 99 parts by weight of a thermoplastic polycarbonate or polyester carbonate,

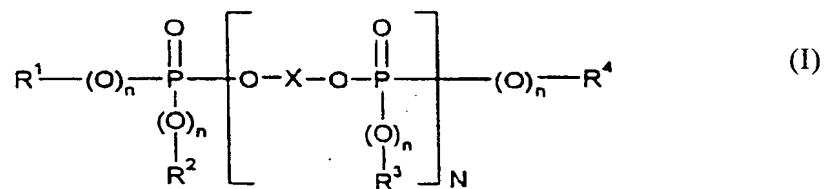
B. 0.5 to 60 parts by weight of a graft polymer of

10 B.1 5 to 95 % by weight of one or more vinyl monomers on

B.2 95 to 5 by weight of one or more graft bases with glass transition temperatures $< 0^{\circ}\text{C}$ and an average particle size (d_{50} value) of 0.20 to 0.35 μm .

15 C. 0 to 45 parts by weight of a thermoplastic vinyl copolymer

D. 0.5 to 20 parts by weight of a mixture of at least one mono- and at least one oligo-phosphorus compound of general formula (I)



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wherein

R^1 , R^2 , R^3 and R^4 , independently of each other, each denote a C_1 to C_8 alkyl which is optionally halogenated, a C_5 to C_6 cycloalkyl, C_6 to C_{20} aryl or C_7 to C_{20} aralkyl, which are each optionally substituted by an alkyl, and/or by a

25 halogen,

n denotes 0 or 1, which are independent of each other,

N denotes 0 to 30, and

5 X denotes a mono- or polynuclear aromatic radical containing 6 to 30 C atoms, and

E. denotes 0.05 to 5 parts by weight of a fluorinated polyolefine.

10 2. Moulding compositions according to claim 1, which contain 40 parts by weight of component B and 0 to 30 parts by weight of component C.

3. Moulding compositions according to ^{claim 1} ~~either one of claims 1 or 2~~, wherein the average particle size d_{50} of component B is 0.25 to 0.30 μm .

15 4. Moulding compositions according to ^{claim 1} ~~any one of the preceding claims~~, wherein the ratio by weight of components B:C is between 2:1 and 1:4.

5. Moulding compositions according to ^{claim 1} ~~any one of the preceding claims~~, which
20 contain 10 to 90 % by weight of at least one monophosphate compound of formula (I) and 90 to 10 % by weight (with respect to the total amount of phosphorus compounds in each case) of at least one oligophosphorus compound of formula (I).

25 6. Moulding compositions according to ^{claim 1} ~~any one of the preceding claims~~, wherein N in formula (I) has an average value of 0.3 to 2.0.

7. Moulding compositions according to ~~any one of the preceding claims~~, which
30 contain, as the monophosphorus compound of formula (I), tributyl phosphate, tris-(2-chloroethyl) phosphate, ~~this~~ (2,3-dibromopropyl) phosphate, triphenyl phosphate, tricresyl phosphate, diphenyl cresyl phosphate, diphenyl octyl

phosphate, diphenyl-2-ethyl-cresyl phosphate, tri-(isopropylphenyl) phosphate, halogen-substituted aryl phosphates, methylphosphonic acid dimethyl ester, methylphosphonic acid diphenyl ester, phenylphosphonic acid diethyl ester, triphenylphosphine oxide and/or tricresylphosphine oxide.

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8. Moulding compositions according to ~~any one of the preceding claims~~, which contain up to 35 % by weight, with respect to the total moulding composition, of at least one flame retardant which is different from component D.

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9. Moulding compositions according to ~~any one of the preceding claims~~, which contain 1 to 18 parts by weight of component D.

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10. Moulding compositions according to ~~any one of the preceding claims~~, wherein graft base B.2 is a diene rubber, an acrylate rubber, a silicone rubber or an ethylene-propylene diene rubber.

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11. Moulding compositions according to any one of the preceding claims, containing a very finely divided compound comprising an element from main groups 1 to 5 or from subgroups 1 to 8 of the periodic table of the elements, in combination with at least one element selected from the group consisting of oxygen, sulphur, boron, carbon, phosphorus, nitrogen, hydrogen and silicon.

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12. Moulding compositions according to any one of the preceding claims, which contain at least one additive from the group comprising stabilisers, pigments, demoulding agents, flow enhancers and/or anti-static agents.

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13. The use of the moulding compositions according to any one of the preceding claims for the production of mouldings.

14. Mouldings produced from moulding compositions according to ~~any one of the preceding claims~~.

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Add B2

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Abstract

Thermoplastic, flame-retardant moulding compositions, containing

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- B. 0.5 to 60 parts by weight of a graft polymer of
 - B.1 5 to 95 % by weight of one or more vinyl monomers on
 - B.2 95 to 5 by weight of one or more graft bases with glass transition temperatures $< 0^{\circ}\text{C}$ and an average particle size (d_{50} value) of 0.20 to 0.35 μm ,
- C. 0 to 45 parts by weight of a thermoplastic vinyl copolymer,
- D. 0.5 to 20 parts by weight of a phosphorus compound, and
- E. 0.05 to 5 parts by weight of a fluorinated polyolefine.